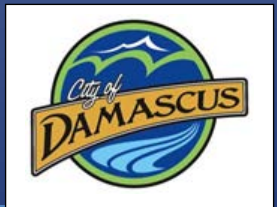




City of Damascus: Buildable Lands Inventory



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Introduction

This report represents the results of the inventory of buildable land within the Damascus urban growth boundary (UGB) and identifies lands that are available for development. The inventory is sometimes characterized as *supply* of land to accommodate growth. Population and employment growth drive *demand* for land, and the amount of land needed depends on the density of development. Current State law requires that cities inventory residential, commercial, and industrial land within their UGB and maintain a 20-year supply of buildable land. Damascus represents a very large area of land with low-density subdivisions and larger properties with existing farms and tree nurseries. With the exception of areas near the west side boundary of the City, there is very little infrastructure in the City so that development is expected to begin on the west side and incrementally move to the east as sewer lines, water lines and transportation facilities are expanded.

The buildable lands inventory includes a determination of land need estimates (the land needed for employment and housing over the 20-year planning period) and a land capacity analysis used to demonstrate the city has sufficient land to meet these estimates. The land need estimates in this report were established using the Metro forecast of housing and employment accepted by the City Council in November, 2012. This forecast covers the 20-year planning period from 2015 to 2035 and is the basis for the Housing Needs Analysis (HNA) and Economic Opportunities Analysis (EOA) completed by Eco Northwest (ECONW) describe later in this report.

This report begins by describing the process used to determine land development capacity. It then compares the land capacity to the land need estimate in the HNA and EOA. The report also includes a determination of the average density and mix of housing types based on the City's Comprehensive Plan Map to show compliance with the Metropolitan Housing Rule.

Process for Determining Land Development Capacity

Land capacity is established by first excluding lands constrained by natural features and hazards established through the Goal 5 and Goal 7 processes. Developed land and land under public ownership is also excluded from the inventory and a sufficient area is set aside to account for needed infrastructure. This establishes a net buildable area for development that can be analyzed to determine employment and housing capacity. The methodology for this analysis comes from a combination of State and regional guidelines related to buildable land inventories, housing needs analyses, economic opportunities analyses and natural resources (or Goal 5) guidelines. The steps taken to determine land capacity are outlined below.

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Steps to Determine Land Capacity

1. Estimate total acres of land both within the City limit inside the UGB; and estimate the total amount of land in each Comprehensive Plan designation area.
2. Identify and calculate constrained areas – i.e., those areas with natural resource features where development will be limited or restricted. These areas are subtracted from the total supply of land to estimate buildable land net of constraints.
3. Estimate land committed to existing development or other uses, including residential, employment and public lands (e.g., existing parks, schools or areas already committed to open space such as the Metro regional green space acquisition area in the north-central portion of the Buttes). These areas are subtracted from the total supply of land.
4. Estimate land needed for public and semi-public facilities including roads, schools, parks, utility easements, churches and other fraternal organizations. These areas and those committed to existing development are subtracted from buildable land net of constraints to determine net residential and employment lands. Subtract land needed for public and semi-public uses from each Comprehensive Plan designation area. The amount of land needed will vary by designation.
5. Estimate the capacity of each area in terms of jobs and housing units based on the following information:
 - a. Projected distribution of land used for housing and employment in each area.
 - b. Assumed net employment and housing densities in each area.
 - c. Additional housing density provided by Accessory Dwelling Units (ADUs) and Transfer of Development Credits (TDCs).
6. Add all estimated housing units and jobs, and calculate net residential density and housing mix.
7. Compare resulting capacity to 20-year estimates established in the EOA and the HNA provided by ECONW.

Areas Excluded from the Land Capacity Analysis

Based on the City's GIS data, there are approximately 9,958 acres within the City limits and urban growth boundary (UGB) of Damascus. There are a total of 10,302 acres of land in the City limits. Approximately 519 acres of land is outside the UGB and not urbanizable for land development at this time. The total combined land within the City limits and the planning area outside the City limits is 10,478.

Land Constrained by Natural Resources and Hazards

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Based on recommendations from the Planning Commission, the following areas have been identified as constrained by natural resource features and will be removed for the inventory for the purposes of determining land available for housing and jobs. Some areas containing wildlife habitat, floodplains and landslide hazards including slope will be subtracted as constrained for inventory purposes but will be provided with potential density credit that can be transferred to less constrained areas and may provide additional development potential in those areas. This potential density will be added back into the inventory into the zones where these areas are located. This does not preclude transfer of this density to other areas.

- **Areas with slopes greater than 25%.** Very little development is expected to occur in these areas with the exception of limited development at very low densities and on existing lots of record. Areas with slopes greater than 25% will be subtracted as constrained for inventory purposes.
- **Landslide Topography including Historic Landslides and Potentially Rapidly Moving Landslide Topography.** Development is expected to be discouraged and restricted in these areas, with development subject to requirements for analysis and monitoring of slope stability and other geological conditions. Given these limitations, these areas will be subtracted as constrained for inventory purposes.
- **Riparian Corridors/Wetlands/Floodplain.** The City expects to establish a buffer around significant riparian corridors consistent with the Metro Title 3 requirements. These areas include streams, locally-significant wetlands based on the City's Local Wetlands Inventory (LWI), and the 100-year floodplain. With the exception of existing lots of record that fall entirely within these areas, development will be primarily restricted with some limited development allowed within the floodplain when other options are not available. These areas will be subtracted as constrained.
- **Habitat Conservation Areas (HCAs).** This is an area identified on the Protected Riparian and Wildlife Habitat Map and is subject to standards and best management practices in the Development Code.
- **Scenic Waterways.** Development within one-quarter mile of the Clackamas River is expected to be allowed (assuming it is outside the floodplain) but with requirements related to visual impacts. These areas will not be subtracted as constrained unless they are in the river's floodplain.

The following table summarizes land estimated as constrained by natural features and resources for the area inside the City limit and UGB.

Table 1. Land Constrained by Natural Features and Hazards

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Comprehensive Plan Designation	<i>Slopes 25% and greater</i>	<i>Historic and Rapidly moving landslide areas</i>	<i>Metro Title 3 & Floodplains</i>	<i>Habitat Conservation Area</i>		<i>Total Combined Area</i>
City Limit and UGB						
Legacy Neighborhood	104	38	36	34		153
Neighborhood	1,227	307	553	621		1,872
Village	32	12	114	109		153
Center	2	0	13	11		14
Employment	9	0	30	20		39
Outside UGB	91	110	7	113		134
Total	1,472	467	753	908		2,365

Land Committed to Existing Development or Other Uses

In addition to the land identified as constrained by natural features, other areas have been accounted for including land committed to existing residential development. Areas within existing subdivisions and adjacent areas developed at the same density and using the same accesses have been accounted for by designating these areas as Legacy Neighborhood zones. An average density of one unit per acre, similar to existing densities, is assumed in these locations.

Other areas within the City committed to existing residential, commercial and industrial development have been subtracted using a GIS layer developed by Metro's Regional Land Information System (RLIS). This layer provides areas with existing residential development including homes, yards, and outbuildings; and areas committed to commercial and industrial uses such buildings and parking areas. Land committed to public or semi-public uses (i.e., schools, parks, other public facilities and dedicated open space) have also been subtracted for inventory purposes. Table 2 below shows all committed uses, followed by the portion that is in public ownership.

Table 2. Land Committed to Existing Uses and Under Public Ownership

Comprehensive Plan Designation		
CITY LIMIT AND UGB	Areas Committed to Existing Uses (in acres)	Areas in Public Ownership (in acres)
Legacy Neighborhood	988	2
Neighborhood	1,488	200
Village	114	10
Center	78	2
Employment	137	7
Total	2,805	221

Land Needed for Public Facilities

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State, regional and local guidelines and standards vary for the percentage of land dedicated to public facilities. Estimates range from 25 percent (Metro Regional Growth Report) to 31 percent (Oregon Department of Land Conservation and Development: *Residential Land Planning Guidebook* which recommends a range of 25 - 31 percent). Damascus Comprehensive Planning team members have assumed percentages as high as 40 percent in some previous planning processes for other communities in the region, including for the Damascus - Boring Concept Plan. Ultimately the State and region will have to recognize the estimates in this process as reasonable and generally consistent with state and regional guidelines. Following is a detailed summary of factors considered and recommendations for these land needs.

- **Land for roads and pathways.** Metro's regional growth report assumes an average of 13.5 percent of land is needed for roads. This assumes that 18.5 percent of land is needed for roads in residential areas based on a review of planned subdivisions in the Metro area in the late 1990s and assumes that significantly less land is needed in non-residential areas. Metro also assumes that most expansion of arterial and collector roads will occur within existing rights-of-way. Other factors influencing land needed for streets within Damascus include:
 - Emphasis on a combination of walkable neighborhoods and narrower streets in Damascus (for most street types), which also was factored into Metro's analysis.
 - Assumption that not all arterial and collector expansion will occur within existing right-of-way (differs from Metro assumption) and increases the amount slightly.
 - Assumption of potentially higher needs for off-street multi-use walkways and trails, some but not all of which will be accommodated in natural areas.

Overall these factors argue for a somewhat (but not significantly) higher need than that assumed by Metro (e.g., 16% rather than 13.5%).

- **Land for parks.** Metro assumes that approximately three percent of total land is needed for parks in newly developing areas. This assumption is based on a fiscally constrained approach to the ability to pay for new lands for active parks. Many jurisdictions (and historic national guidelines) assume an overall level-of-service (LOS) of approximately 10 acres of land per 1,000 residents for **both** developed/active park and recreation areas and passive open space areas, although LOS goals can be significantly higher or lower than this average. On average, lower levels-of-service and land needs are assumed for developed park and recreational facilities (e.g., 6.5 acres per 1,000 residents in the Tualatin Hills Park and Recreation District).

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Fiscal constraints are expected to be an issue in Damascus, particularly in light of the many restrictions placed on the City related to public funding by its residents. While Damascus residents may want more parks, the reality is that they'll have a hard time paying for them. At the same time, Comprehensive Planning is intended to be an aspirational exercise. Balancing a desire for more parks with the realistic ability to pay for them argues for a moderate estimate of land needed for active park space – somewhat higher than Metro guidelines but lower than what was assumed in the Damascus - Boring Concept Plan. We have assumed a percentage equal to that used by the Tualatin Hills Park and Recreation District one of the region's most successful park and recreation providers. While it may overestimate Damascus' ability to pay for park and recreation facilities, it is a reasonable balance between the City's desires and funding ability. It does not incorporate land needed for more passive open space, given that a significant percentage of total land in Damascus has already been deducted for constrained/natural areas (about 33 percent). These areas are expected to meet a significant portion of those passive park and open space needs.

- **Land for infrastructure easements.** Metro's guidelines are used to estimate these land needs that do not tend to vary significantly among different jurisdictions. While Damascus may assume higher land needs than other jurisdictions to provide for stormwater management facilities, etc. many of these facilities will be accommodated in constrained areas, reducing the need for subtracting additional land from the unconstrained supply of buildable land.
- **Land for churches and fraternal organizations.** Metro's guidelines are used to estimate these land needs that do not tend to vary significantly among different jurisdictions.
- **Land for existing streets.** These areas have been subtracted based on a GIS analysis of land already used for public rights-of-way.

The following table summarizes these assumptions and recommendations.

Table 3. Estimated Land Needed for Public and Other Facilities: City Limit and UGB

Element	Acres	Percent	Notes/Assumptions
Total Unconstrained	5,111		Clackamas County GIS Services
Churches, fraternal	97	1.9%	From Metro BLI calculations
Major infrastructure easements (non-roads)	97	1.9%	From Metro BLI calculations
New streets	818	16%	Slightly higher than Metro estimate - don't believe anything higher would be justifiable given goals for narrower streets in Damascus and center-focused development patterns
New schools	256	5%	Higher than Metro estimates and DLCD push towards smaller

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			school sites but assumed reasonable and consistent with earlier analysis and practice by other school districts
New parks	256	5%	Assumptions: LOS = 6.5 acres per thousand of developed parks; natural areas and open space accounted for in constrained/natural areas - higher than Metro estimate and probably high compared to ability to fund but equal to THPRD level of service
Existing streets (Damascus - all streets)	86	1.8%	From Damascus GIS data
Net acres	3,501		Based on varied percentages in different zones
Percent subtracted		33%	Percentage varies based on zone

The overall percentage of 33% is subtracted for inventory purposes. However, in determining land capacity the percentage will vary with higher percentages assumed in some residential areas (approximately 36%) and lower percentage in employment and mixed used areas (approximately 20-30%). The total acreage needed for public and other facilities is approximately 1,610 acres.

After subtracting these areas, along with areas committed to existing development from the supply of constrained land, we find that there is approximately of 3,501 acres of land available for development of residential and employment uses at assumed net densities.

Residential and Employment Land Needs

20-Year Residential Land Needs

The City's Goal 10 analysis, the Housing Needs Analysis (HNA), prepared by ECONorthwest (ECONW) provides an estimate of needed housing in Damascus based on Metro's population forecast. ECONW's HNA indicates 7,081 new housing units will be needed in Damascus over the 20-year planning period (2015-2035). The Metro Housing Rule requires a 50-50 housing split between multifamily and single family attached, and single-family detached housing. It allows exceptions to the requirement if a jurisdiction can justify this by showing that specific conditions within the community and surrounding parts of the region support assuming a different mix of needed housing. The Metro Housing Rule also provides for cities to justify an alternative mix based on the Metro forecast of dwelling units by type. The HNA prepared by ECONW assumes a 60-40 housing split as more appropriate for Damascus based on Metro's forecast indicates that less than 1% of the new housing developed in Damascus will be multi-family housing over the 20-year planning period (2015-2035). The HNA also includes statistics from the U.S. Census that indicates the portion of single family housing has actually increased in Clackamas County by 3% between 2000 and 2011. Table 4 below shows the Estimated Needed Future Distribution of Housing Units.

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Table 4. Estimated Needed Future Distribution of Housing Units

Housing Type	Percentage by Type
Single family detached units	59%
Manufactured homes in parks	1%
Total Single family detached	60%
Single family attached units	3%
Multi-family units	37%
Total multifamily and Single family attached	40%

The ECONW Goal 10 analysis goes on to estimate land needs associated with housing. The following table summarizes the 20-year land needs for the projected housing types needed in Damascus.

Table 5. Estimated Needed Future Net Residential Land, ECONW

Housing Type	Needed Acres
Single family detached	653
Manufactured homes in parks	10
Single family attached	12
Multi-family	85
Total All Housing Types	747

The Metro Housing Rule also allows for variability in the density requirements. The Rule applies a net density requirement of 10 units per net acre to specific jurisdictions within the region, including Multnomah County and the cities of Portland, Gresham, Beaverton, Hillsboro, Lake Oswego and Tigard (i.e., the most urban communities in the region). Lower thresholds are applied to other jurisdictions – eight units per net acre for Forest Grove, Gladstone, Milwaukie, Oregon City, Troutdale, Tualatin, West Linn and Wilsonville; and six units per net acre for Cornelius, Durham, Fairview, Happy Valley and Sherwood).

No specific threshold was applied to Damascus since it was not a city at the time the Metropolitan Housing Rule was established. The land within the Damascus City limits also is subject to the Metro Functional Plan requirement that states land brought into the UGB for future development must be planned for development at an average residential density of 10 units per acre. To comply with Titles 1 and 11 of the Metro Functional Plan, a density of 10 units per acre is required to be applied for the City. There is a “substantial compliance” finding possible if the City can get close to, but not actually achieve, the 10 dwelling units per acre.

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For the City to comply with Goal 10, the Department of Land Conservation and Development (DLCD) has determined Damascus should be held to a lower threshold of 8 units per net acre consistent with smaller communities.

20-Year Employment Land Needs

The City's recently completed a Goal 9 analysis and report, the Damascus Economic Opportunities Analysis, prepared by ECONorthwest identifies future employment projections and associated land needs. They assessed land needs associated with two broad categories of employment: (1) retail, services and government; and (2) industrial.

The following tables summarize the Goal 9 analysis 20-year land needs. The higher job density ratios are based on job densities for employment uses and developments in communities similar to what is projected for Damascus. They are also similar to Metro regional guidelines for job densities for the same employment types.

Table 6. Projected Employment, Damascus, 2015-2035, ECONW Report

Employment Type	New Employment (Jobs)
Retail, services, government	1,719
Industrial	841
Total	2,560

Table 7. Estimated Jobs per Acre, Damascus, 2015-2035, ECONW Report

Employment Type	Jobs per Acre
Retail, services, government	30
Industrial	16

Table 8. Projected Total Employment Damascus, 2015-2035, ECONW Report

Employment Type	Acres
Retail, services, government	57
Industrial	53
Total	110

Adding the total residential and employment land described in this section results in a 20-year total net land need for development of approximately 1,057 acres for residential and 110 for employment land. Residential land accounts for approximately 10 percent of the total needed net land area.

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Determining Land Capacity by Comprehensive Plan Designation

City staff has worked with the Planning Commission to develop a Comprehensive Plan Map (and a Zoning Map) that retains the character of existing neighborhoods, provides for employment and mixed-use centers, and new neighborhoods with a variety of housing types and neighborhood-scale commercial and employment areas.

City staff evaluated the Comprehensive Plan Map to assess the capacity for future development associated with it. This included the following steps described earlier in this report:

1. Estimate the total amount of land in each Comprehensive Plan designation.
2. Subtract constrained areas from Comprehensive Plan designations.
3. Subtract land committed to existing uses.
4. Subtract land needed for public and semi-public uses from each Comprehensive Plan designation area; the amount of land needed varies by designation.
5. Estimate the capacity of each area in terms of jobs and housing units based on the following information:
 - a. Projected distribution of land used for housing and employment in each area.
 - b. Assumed net employment and housing densities in each area.
 - c. Additional density provided by Accessory Dwelling Units (ADUs) and Transfer of Development Credits (TDCs).
 - d. Additional density provided by Accessory Dwelling Units (ADUs) and Transfer of Development Credits (TDCs)
6. Add all estimated housing units and jobs and determine density and housing mix.
7. Compare resulting capacity to employment and housing development described above.

- 1. Estimate the total amount of land in each Comprehensive Plan designation,**
- 2. Subtract constrained areas from Comprehensive Land designations,**

Table 9 summarizes the amount of land in each Comprehensive Plan designation both in total and after subtracting for constraints.

Table 9. Comprehensive Plan Map Designation–Total and Net of Natural Resource Constraints

Comprehensive Plan Designation		
CITY LIMIT AND UGB	Total Area	Unconstrained Area

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Legacy Neighborhood	1,458	1,305
Neighborhood	6,956	5,84
Village	627	474
Center	143	129
Employment	600	561
Total	9,784	7,383

3. Subtract land committed to existing uses; and

4. Subtract land needed for public and semi-public uses from each Comprehensive Plan designation area and zone.

Land committed to existing residential uses has been subtracted primarily from lower density residential areas based on the relative proportion of building land in each area. This approach assumes that more redevelopment will occur in higher density areas while redevelopment in lower density areas will be consistent with average future development densities in those areas. While this is an approximation, it is valid for the purposes of the BLI and should not have a significant effect on the accuracy of the analysis. Land needed for existing public facilities and in public ownership has also been subtracted from Comprehensive Plan designation areas and zones. Table 9 summarizes these calculations.

The percentage of land needed for future public and other facilities varies by Comprehensive Plan designation as described on page 8, with the highest percentage (36 percent) assumed in the Residential Neighborhood Medium and Village designations and the lowest (20 percent) assumed in the Employment designations. Variations are based on the relative distribution of residential vs. employment land and the projected net density of residential development. The following table summarizes these calculations.

Table 10. Comprehensive Plan Map Designation Areas – Land Committed to Development and Needed for Public Facilities and Other Similar Uses

Comprehensive Plan Designation			
CITY LIMIT AND UGB	Areas Committed to Existing Uses	Areas in Public Ownership	Area Need for Public Facilities
Legacy Neighborhood	988	2	92
Neighborhood	1,488	200	1,089
Village	114	10	114
Center	78	2	15
Employment	137	7	79
Total	2,805	221	1,389

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5. Estimate Mix of Uses and Residential and Employment Densities

Within each designation, a certain percentage of net developable land (after subtracting for constraints, existing development and public facilities) will be used for different types of uses – i.e., residential, retail, commercial or employment. In addition, a certain average net residential or employment density is assumed for each area. The mix of land uses assumed and expected average net densities are shown in Tables 11 and 12.

Table 11. Estimated Distribution of Land Uses by Zone

Zone				
CITY LIMIT AND UGB	Residential	Retail	Commercial/Office	General Employment
Legacy Neighborhood	100%	0%	0%	0%
Neighborhood Low	100%	0%	0%	0%
Neighborhood Medium	90%	10%	0%	0%
Neighborhood Commercial	5%	95%	0%	0%
Village	40%	50%	10%	0%
Center	20%	70%	10%	0%
Employment	0%	5%	35%	60%
Industrial	0%	5%	0%	95%

Table 12. Projected Residential and Employment Densities by Zone

Zone				
CITY LIMIT AND UGB	Base Residential (units/acre)	Retail (jobs/acre)	Commercial/Office (jobs/acre)	General Employment (jobs/acre)
Legacy Neighborhood	1	0	0	0
Neighborhood Low	6.4	0	0	0
Neighborhood Medium	18	30	0	0
Neighborhood Commercial	15	30	30	0
Village	20	30	30	0
Center	36	30	30	0
Employment	0	30	30	16
Industrial	0	30	0	16

Following is a summary of the assumptions associated with the densities assumed in Table 12. In calculating residential land capacity and resulting average net density, jurisdictions in the Portland region typically assume densities somewhere between 80% and 100% of the maximum density since this calculation is intended to demonstrate that the jurisdiction has the “capacity” to achieve required average net densities. For example, in estimating residential capacity and average net densities as part of their

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recently completed housing needs analysis and Comprehensive Plan Housing element (reviewed by DLCDC and Metro as consistent with Goal 10 and Metro Title 11 requirements), the City of Tigard generally assumed development at maximum residential densities for lower density residential zones. In higher density zones, where no maximums exist, they typically assumed development at net densities of approximately 40 dwelling units per acre in mixed use and high density residential zones. In the City of Hillsboro's South Hillsboro Plan, the City generally assumed development at 80% of net densities. In neighborhood and town center areas, this assumed net residential densities between 24 and 40 units per acre. Consistent with these examples, Damascus assumed the following:

- **Legacy Neighborhood.** The Damascus Development Code does not include a minimum or maximum net density for future new development in this zone. The Comprehensive Plan establishes an average net density of one (1) unit per acre in this zone. That density was used as the assumed base density for this zone.
- **Neighborhood Low Density.** The City's Development Code establishes a minimum net density of four (4) dwelling units per acre and a maximum net density of eight (8) units per acre. The capacity analysis assumes a base density of 80% of the maximum density, or 6.4 units per net acre.
- **Neighborhood Medium Density.** The City's Development Code establishes a minimum net density of eight (8) dwelling units per acre and a maximum net density of 22 units per acre. The capacity analysis assumes a base density of 80% of the maximum density, or 17.6 units per net acre. While this is a relatively high density for a medium density residential zone, it is considered a reasonable estimate for two reasons. First, net available residential land zoned for medium density makes up a relatively low percentage of all net residential land (less than 10%). In addition, land zoned for even higher densities makes up a very small portion of land available for residential development. Residential land in the Center, Village and Neighborhood Commercial zones makes up a combined total of only about 4% of the total residential land supply. As a result, a significant percentage of land in the medium density zone will be needed for multi-family and single family attached units to enable the City to meet its anticipated 60/40 single family detached to multi-family and single-family attached residential split.
- **Neighborhood Commercial.** The Development Code does not include minimum or maximum density requirements in this zone. Instead, the Code provides minimum lot size requirements that could result in a maximum net density of about 28 units per acre assuming single-story development. However, development in these zones would be in closer proximity to surrounding low and medium density zones, with an expected combination of single-family attached and smaller scale multi-family residential developments. As a result, a density of

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15 units per acre (consistent with row house/townhouse development) is assumed in this zone.

- **Village.** The Development Code does not include minimum or maximum density requirements in this zone. Instead, the Code provides minimum lot size requirements that could result in maximum net density of about 28 units per acre assuming single-story development. However, the zone also allows for building heights equivalent to 3 - 4 story buildings in this area. Similar to but more conservative than assumed densities in similar zones in other Metro area jurisdictions, the City assumes a net density of 20 units per acre in this zone.
- **Center.** Similar to the Village zone, the Development Code does not include minimum or maximum density requirements in this zone. Instead, the Code provides minimum lot size requirements that could result in maximum net density of about 28 units per acre assuming single-story development. However, the zone also allows for building heights equivalent to 4 - 5 story buildings in this area. Similar to but somewhat more conservative than assumed densities in similar zones in other Metro area jurisdictions, the City assumes a net density of 36 units per acre in this zone.

In addition to a base density provided for each zone, additional dwelling units have been added to the buildable lands inventory in three categories: accessory dwelling units (ADUs), senior housing and transfer of development credits. These densities are not based on the net acreage for the zone, but are calculated as added density and added to the overall density of the zone as described below.

Accessory Dwelling Units. Metro provides for cities to allow accessory dwelling units on properties developed with single-family detached homes. The City of Damascus expects that a moderate number of ADUs will be needed and desired to help expand the supply of affordable housing in Damascus and to meet the needs of an increasing percentage of older residents. This may be particularly important given the average age of Damascus residents, which is higher than the regional average as documented in the City's Housing Needs Analysis. The City's Buildable Lands Inventory assumes 10% of homes within the Legacy Neighborhood and low density neighborhood zones will contain an accessory dwelling unit. In the medium density neighborhood zone, only 5% of lots are assumed to include an ADU. The lower percentage reflects the higher percentage of single family attached and multi-family units assumed in this zone. These are similar to percentages assumed in other jurisdictions in the Portland Metro region and elsewhere in the Willamette Valley. For example, the City of Keizer recently assumed that ADUs will be constructed on 5% of new and existing residential lots during their 20-year planning horizon. The estimated number of ADUs has been added back into the density calculations for each zone where single family detached housing is allowed. The number of additional units is calculated

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based on the number of single-family attached units expected for each zone. Table 13 provides the expected amount of additional units provided by ADUs and senior housing developments.

Senior Housing Developments. The City of Damascus allows senior housing developments to be built in any residential zone except the Legacy Neighborhood zone, with no limits on residential density. The City expects a modest percentage of land within the low and medium density zones will be developed for this type of housing. As noted previously, the proportion of seniors is projected to continue to increase, with an even larger proportion of seniors in advanced age groups as the baby boomer generation ages. Senior living and adult residential care facilities in the Portland area are already seeing an increased demand for their facilities and relatively low vacancy rates. With a larger share of aging residents than the County or the region as a whole, Damascus is poised to accommodate a large share of senior housing. The City has already been approached by developers of two different proposed senior housing facilities in recent months. The BLI assumes that 2.5% of the supply of residential land in the low and medium density zones will be developed for senior housing facilities, a relatively modest proportion, given the size of this demographic group. Similar to accessory dwelling units, these units have been added back into the density calculation based on the additional number of units that could be constructed, but subtracting the base development from this portion of the land supply to avoid double counting. The average net density for these developments is assumed to be approximately 30 net units per acre, consistent with the density of similar developments in other parts of the region. This density reflects relatively small-scale developments, consistent with height and other site design requirements in Damascus, rather than the very large-scale complexes that have been built in denser areas of Portland.

Table 13. Density from Accessory Dwelling Units and Senior Housing by Zone

Zone	<i>Base Housing Units</i>	<i>Additional ADUs</i>	<i>Additional Senior Housing Units</i>	<i>Total New Housing Units</i>
<i>Legacy Neighborhood</i>	310	31	0	31
<i>Neighborhood Low</i>	15,072	1,431	1,389	2,820
<i>Neighborhood Medium</i>	4,514	225	88	313
<i>Total</i>	19,896	1,687	1,477	3,164

Transfer of Development Credit. The City's Habitat Conservation Area (HCA) has been removed from the Buildable Lands Inventory for the purposes of calculating density. The density from these areas may be either transferred on-site or off-site to

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increase the overall density available on a property and the average density of the Comprehensive Plan designated area. Three areas are described as potential sending areas for transfer of density in Table 14 below. The net acreages available for each is based on GIS calculations along with the net density available for each area. This additional density has been added back into the density of the zone where it is located and allocated either as single family attached units or non-single family attached units based on the housing types estimated for the zone.

Table 14. Approximate Additional Density from Transfer of Development Credit by Zone

Zone	Net Acres			Totals	
	HCA with Slope-2 units per net acre	HCA without Slope-4 units per net acre	Floodplain without other Constraints- 4 units per net acre	Acres	Density Credits
Neighborhood Low	216	338	8	549	1,804
Neighborhood Medium	1	1	0	2	42
Neighborhood Commercial	1	1	0	2	6
Village	10	80	15	105	400
Center	1	5	0	6	22
Totals:	458	1,700	92	664	2,274

6. Estimate Capacity in Housing Units and Jobs

Applying the land use mix and density assumptions in Tables 11 and 12 to the land areas shown in Tables 9 and 10, and adding the additional density shown in Tables 13 and 14 results in the projected number of housing units and jobs and average residential density shown in Table 15. Residential density is shown as both a base density and potential density available for transfer. This shows the difference in what is designated as the base density of the zone and the density that can be achieved through either an on-site or off-site transfer and provides the opportunity for an average density of 9.5 units per acre for the City. It also assumes a portion of new single family units will develop with an attached dwelling unit and additional density will be added through the development of senior housing.

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Table 15. Estimated New Jobs, Housing Units, and Residential Density by Zone

Zone	Jobs	Housing Units	Base Density	Potential Density Available with Transfer, ADUs and Senior Housing
Legacy Neighborhood	0	341	1	1.1
Neighborhood Low	0	20,955	6.4	9.1
Neighborhood Medium	79	4,866	17.6	19
Neighborhood Commercial	948	38	15	18.3
Village	2,714	2,118	20	22.5
Center	766	324	36	39.1
Employment	4,113	0	0	0
Industrial	2,565	0	0	0
Total:	11,183	28,642	7.3	9.5

Table 16 shows the potential mix of housing based on the housing type supported in each zone. This table reflects how the City provides a 60/40 mix of single family detached to non-single family attached housing as described on page 8.

Table 16. Estimated Housing Units by Type

Housing Type	Percentage by Type	Potential Units
Single family detached units	60%	- 16,541
Single family attached and multi-family	40%	11,028

7. Compare Projected Needs to Estimated Capacity

Table 17 provides a comparison of housing and employment needs compared to the capacity estimated in the Comprehensive Plan designations. It shows the capacity of the city inside the Damascus City limit and UGB is adequate to provide the number of jobs and housing units needed over the 20-year planning period. Table 17 also shows the projected new population based on the Metro forecasted average of 2.5 persons per household expected by the end of the 20-year planning period.

Table 17. Estimated and Projected Housing Units, Jobs, and Population

Housing Units, Jobs, and Population	Projected Housing and Employment Needs: 20-Year Planning Period	Estimated Capacity in City Limit inside UGB
Commercial/Retail/Government Services jobs	1,719	7,021
General Employment/Industrial jobs	841	4,163
Total Jobs	2,560	11,183
Single-family detached units	4,249	17,185
Single family attached and multi-family	2,832	11,457

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Total Residential Units	7,081	27,569
Projected New Population (20-year Planning Period)	17,703	

CONCLUSIONS

This analysis indicates the following for Damascus:

- After subtracting for land with environmental constraints and committed to existing uses, the City has a total supply of “buildable” land of approximately 5,111 acres to meet future land needs for development. After subtracting for land needed for roads, schools, parks and other public and quasi-public facilities, the City has approximately 3,501 net acres of land for development.
- The City’s Comprehensive Plan map designates approximately 2,915 acres of land for residential uses and 586 acres for employment uses based on the estimated uses in each area.
- The City’s Comprehensive Plan Map has designated adequate land for residential uses to meet projected land needs and to protect and manage areas with environmental resources.

Table 18 on the following page provides a summary of the Buildable Lands Inventory.

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Table 18. Summary of Buildable Lands Inventory (Areas shown in Acres)

Zoning	Area inside the City limit and UGB	Areas constrained by natural features and hazards	Existing development and area used for public and semi-public uses	Total area excluded including overlap	Land remaining after all excluded areas are removed	Land needed for public facilities	Net land available for development
Industrial	233	17	25	41	192	38	154
Employment	367	22	112	129	238	48	190
Center	143	14	78	86	57	17	40
Village	626	153	114	251	375	124	251
Neighborhood Commercial	71	3	19	21	50	15	35
Neighborhood Medium	520	48	65	111	409	147	262
Neighborhood Low	6,364	1,821	1,404	2,950	3,414	1,127	2,287
Legacy Neighborhood	1,458	153	988	1,082	376	94	282
Totals	9,958	3,321	2,832	5,638	4,321	1,333	2,988

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